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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,925	12/01/2003	Joseph Thorman	API-1027-US(COS-935)	3266
25264	7590	12/15/2004		
FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412			EXAMINER CHOI, LING SIU	
			ART UNIT 1713	PAPER NUMBER

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,925

Applicant(s)

THORMAN, JOSEPH

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 18-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/01/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-17, drawn to a process to polymerize propylene monomer, classified in class 526, subclass 124.3.
- II. Claims 18-24, drawn to a catalyst, classified in class 502, subclass 103.
- III. Claims 25-30, drawn to polypropylene, classified in class 526, subclass 351.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product such as in a process of isomerization or hydrogenation.

Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP

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§ 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as a process using metallocene,

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to a catalyst and polypropylene.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. David Mossman on November 8, 2004, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

6. Claim 12 is objected to because of the following informalities: claim 12, line 6, "halogen or a hydrocarboxyl" is suggested to be changed to --halogen and a hydrocarboxyl--

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. **The following is a quotation of the second paragraph of 35 U.S.C. 112:**

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 12-13; **claim 12**, lines 19-20, the recitation "the organoaluminum compound" causes indefiniteness because there are **two** organoaluminum compounds are used in the contacting steps.

Claims 5-6, line 1; claims 15-16, line 1, the recitation "the organoaluminum compound" causes indefiniteness because it is not clear which organoaluminum it implies.

Allowable Subject Matter

9. This application contains allowable subject matter (claims 1-17) because the prior art of record, either alone or in combination, fails to teach or suggest the use of the particularly claimed ester electron donor claimed herein. The closest prior art is Hara et al. (US 5,489,634).

The present invention relates to a process for propylene polymerization, comprising

A	providing a Ziegler-Natta catalyst, and in any order:
	contacting the catalyst with an organoaluminum compound ;
	contacting the catalyst with at least one electron donor comprising a di-sec-butyldialkoxysilane simultaneously with or subsequent to contacting the catalyst with an organoaluminum compound
B	introducing the catalyst into a polymerization reaction zone containing the organoaluminum compound, at least one electron donor, and propylene monomer
C	removing propylene homopolymer or copolymer from the polymerization reaction zone

(summary of claim 1)

Hara et al. disclose a process to prepare a stereospecific polyolefin in the presence of a catalyst comprising (A) a catalyst component prepared by contacting (a) metal magnesium /2-ethylhexanol, tris-i-propoxyaluminum, and titanium tetra-n-butoxide with (b) **isobutyl aluminum dichloride** to obtain a solid product, and further reacting with this solid product (c) diisobutyl phthalate (or ethyl benzoate) and titanium tetrachloride to obtain a solid catalyst component, and further reacting with this solid catalyst component (d) **triethyl aluminum** and an oxygen-containing organic compound of silicon of the

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formula **t-Bu(n-Bu)Si(OM)₂**, (B) triethyl aluminum, and (C) an electron-donative compound of the formula of diisobutyldimethoxysilane (claim 1). However, Hara et al. do not teach or fairly suggest a process for olefin polymerization in the presence of a catalyst comprising di-sec-butyldialkoxysilane as an internal electron donor.

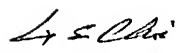
If the non-elected claim is canceled and the hereinabove rejections under 35 USC 112 and objection are obviated, the application could be passed to issue.

Conclusion

10. Figures 1-3 are objected because the lines for DIBDS are not clear and the figures are not bounded.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.


LING-SUI CHOI
PRIMARY EXAMINER

December 10, 2004